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Using public preferences to quantify the burden of travel to specialist vascular centres for abdominal aortic aneurysm treatment in the U.K.

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Background: International evidence from retrospectively collected administrative data suggests that hospitals that conduct more abdominal aortic aneurysm (AAA) procedures have lower treatment associated mortality rates (Phillips et al 2017). This evidence does not account for the wider impacts of centralisation on patients, or the general public, for instance in terms of increased travel distance and time required to access services.

Aims: To quantify the burden of travel to specialist AAA treatment centres, in terms of mortality rates, using public preferences.

Methods: 201 healthy individuals, recruited from 9 sites in England, participated in structured telephone interviews between June and October 2017 to ascertain:

- **Preferences for local or specialist hospitals.**
- **The reduction in mortality rates required to compensate for additional travel of up to 60 miles to a specialist centre for an AAA procedure.**

Results: Preliminary descriptive analyses suggest that 11% of study participants would choose to attend their local hospital if it had a 5% mortality rate, rather than travel to a specialist hospital with zero mortality; conversely 38% of participants reported a willingness to travel to a specialist hospital even when there was no associated reduction in risk; both hospitals having a hypothetical 5% mortality rate. The remaining 50% of participants reported a willingness to travel up to 60 miles to a specialist hospital for treatment contingent upon a mean reduction in mortality of at least 2.15%.

Respondent Characteristics	
Sex	Male 32%; Female 68%
Age	Range 21 to 87 years;
Usual mode of transport	112 own car , 19 public transport, 30 walked, 40 other mode of transport
Highest education level	52 GCSE/ O level ; 17 A level , 120 university, 12 other
Occupation	66 retired, 121 employed, 14 other
Distance (home to local hospital)	Ranged from <1 miles to 20 miles; mean distance was 6.4 miles. Travel time ranged from 5 minutes to 70 minutes, average travel time was 20 minutes.
Location	London, Sheffield , Colchester, Cambridgeshire, Ashford, Northumberland, Basildon, Stoke and Gillingham

Discussion: In line with national guidance (NICE 2013), we have elicited public preferences for the re-organisation of AAA treatment provision in relation to travel distances. These suggest a willingness to travel to access specialist services in the UK. Further detailed analyses of data are planned to investigate variations according to treatment options, age, gender, access to transport and geographical location.
It is unlikely that the results are directly transferable to other international contexts due to the unique socio demographics and population densities of individual countries and their transport and health care infrastructures, though the novel research technique used here is likely to be of value in ascertaining local preferences.

Conclusions: The centralisation of treatment provision for elective AAA is broadly in line with U.K. public preferences, which has implications for future service organisation.

References:
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